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Saving the Forests: Forging a Global Compact

Reconciling the need to preserve the Earth's remaining forests with the needs of countries to exploit their forests as economic resources is one of the most challenging tasks on the agenda of the United Nations Conference on Environment and Development, known as the Earth Summit.

For Maurice Strong, Secretary-General of the Summit, the answer lies in sustainable development—development that will sustain the world's forests for future generations while meeting the needs of peoples today. Strong recently cautioned: "Let us be clear—and realistic. Until nations and people that depend on forests for their economic well-being can see that their economic interests are served by sustainable development of forests, the destruction of forests will continue."

In the early stages of preparations for the Summit, some industrialized countries called for an international agreement on forestry that would ban cutting the remaining tropical rainforests. The forests were seen as necessary "sinks" for converting carbon dioxide and other climate-changing gases to oxygen, and as homes for the richest variety of biological species (plant, insect and animal) on the planet.

Developing countries agreed with the importance of the issue, if not the strategy. Led by Malaysia, they called for an agreement that would include the forests of the temperate and boreal latitudes, as well as those in the tropics.

When Governments meet in Rio de Janeiro, Brazil, from 1 to 12 June 1992, they will consider a set of principles to ensure sustainable development of the world's forests. These principles, if adopted, are expected to form the basis for post-Summit negotiations on an international legal agreement on forestry.

Conflicting Interests

The divergence of views on the forestry issue is not surprising. Trees mean different things to different people: it is tempting to claim that others "do not see the forest for the trees".

- To many indigenous peoples, forests are home. They have lived in the forests for thousands of years, making little impact on them, but they fear for their way of life.
- To farmers and ranchers, forests are obstacles that must be burned and cleared to provide new lands; to loggers, they provide jobs and income.
- To more than two billion people in developing countries who lack other options, forests are an essential source of fuel for cooking.
- To Government leaders, forests are sovereign resources which countries have the right to exploit.

Developing countries in particular—desperate to provide basic necessities for their people and to earn foreign exchange to pay their debts—are under great economic pressure to exploit or clear their forests. They are also under increasing pressure from environmentalists and Northern Governments to preserve tropical forests, both as wildlife habitats and to counter global warming.

But developing countries question why they should bear the economic burden for solving

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a problem created largely by pollution in the North: most greenhouse gases are caused by the burning of fossil fuels in industrialized countries.

These conflicting views, especially those between the Northern industrialized nations and Southern developing countries, surfaced clearly during early preparations for the Earth Summit. The North's focus on tropical forests has been met with the South's requirement that the global forest—including that which has been cut in the North in the past—be considered.

Fuel for the North's Wealth

The industrialized countries began clearing their forests in the 6th century. Some 32-35 per cent of temperate forests have been lost since pre-agricultural times, compared with about 15-20 per cent of old-growth tropical forests. Three quarters of Europe (not counting the former Soviet Union) was probably covered by forest; about 50 per cent of the original cover has been cleared.

More than a quarter of all forests growing in the United States in the 17th century had been felled before programmes to replant trees began during this century. However, newly planted trees cannot fully replace old-growth forests in the ecological balance. During the 1980s, the last of the virgin timberlands were being cleared at the rate of 24,000 hectares per year, and the Government is under pressure to open up public land in the Northwest to logging interests. One out of every four logs is exported—much of it to Japan to build homes.

In Canada, which has been called the "Brazil of the North", over seven million hectares of forest were burned in 1989; some two million hectares are burned in an average year. In New Zealand, settled as late as 1840, the islands have been almost cleared of forests to create land for the sheep and cattle grazing on which the wealth of the country has been built.

Jobs or Trees: the Eco-nomic Dilemma

Many people make their livelihood from cutting down trees. Globally, logging is an $85-billion-a-year industry. Some 3.4 billion cubic metres of wood are taken from the Earth's forests each year, half of it from the United States, Canada and the former Soviet Union. Roughly 50 per cent is used for fuel, and the other half for lumber, paper and other wood products. By 2030, world-wide annual demand is expected to grow from today's 1.7 billion cubic metres to between 2 and 2.6 billion cubic metres.

The wealth derived from logging feeds into the economic life of countries as a basis for jobs and growth. Developing countries want the chance to exploit their natural resources—as industrialized countries have done—to generate the income sorely needed to provide food, education, health care and other basics for their peoples. Nearly all of the timber produced by developing countries is exported to earn much-needed foreign exchange.

However, once the trees are felled, jobs disappear; neither the environment nor the economic life of the community is protected. The critical question is the sustainable management of forests. Without it there will eventually be no jobs.

In the past, forests have been treated as never-ending resources. Nations have taken turns supplying the world's lumber needs. These countries have often been left with widespread land erosion and resulting human suffering. Damage to the flood-plain of India and Bangladesh along the Ganges, caused largely by massive deforestation, exceeds $1 billion annually.

A Wider View of Values

The value of forests has often been described in narrow economic terms, as an exploitable resource. However, in recent years a wider view has emerged of the varied functions forests serve, many of which have far-reaching economic and social implications. Increasingly, forests are seen:

- as homes for indigenous peoples.
- as "sinks" for converting carbon dioxide through photosynthesis into the oxygen needed to keep us alive.
- as protection for watersheds. Forests help prevent avalanches, floods, landslides and mud-flows, and protect hydroelectric power plants, irrigation and municipal water supplies.
- as wildlife habitats for a rich diversity of species of plant, animal and insect life. Tropical forests

are believed to be home to more than half the species on earth, including medicinal plants and food crops. Fallen leaves are a primary source of humus, the topsoil which sustains plant life.

- as key players in maintaining crucial ecological balances, such as the annual cycle of sediments and flood water needed for the production of rice to feed hundreds of millions of people.
- as recreation areas.
- as fuel used daily by some two billion people in developing countries. Half the annual forest harvest is for fuel. Where forests are degraded, women must walk farther to find cooking fuel; but in some areas, there is no wood at all. By 2000, the fuelwood deficit could reach 960 million cubic metres a year, the energy equivalent of $30 billion worth of oil annually.

Converging Forces Cause Alarm

Today's situation is made urgent by the rate at which forests are being lost, the increased burning of fossil fuels and the contribution of forest-burning to climate change.

Studies suggest that in the last 20 years, human activity has cleared as much of the Earth's forest cover as was previously cleared in all of history. In 1980, the Food and Agriculture Organization of the United Nations (FAO), in cooperation with the United Nations Environment Programme and the UN Economic Commission for Europe, conducted a comprehensive survey of world forests.

Ten years ago forests covered an estimated 3.6 billion hectares or 36 million square kilometres—27.6 per cent of the planet's total land area (excluding Greenland and Antarctica). Deforestation of tropical forests was estimated to be 11.4 million hectares per year. Shifting agriculture was responsible for about 45 per cent of the deforestation. Ranching, colonization, permanent cash-crop agriculture and over-exploitation for fuelwood were other causes.

FAO's 1990 data paints a bleak picture of the last decade. Boreal (northern) forest cover is relatively stable, but total forest area in the tropical regions has decreased by some 200 million hectares. For the 76 countries which contain 79 per cent of the world's tropical forests, the annual deforestation rate is as high as 16.8 million hectares. Except where there is little forest left, deforestation has accelerated throughout the tropics.

A related problem is widespread degradation of forests, which is more gradual and difficult to detect than clearing or burning. It is caused by selective cutting of the most valuable trees, overexploitation for fuel, excessive hunting and grazing, air pollution, repeated fires and war. It is often accompanied by degradation of the soil and of plant and animal life.

The Link to Global Warming

While forests are diminishing at an alarming rate, the use of fossil fuels stands to increase dramatically—a combination projected to accelerate global warming and other climate change. Industrialized nations are currently the primary source of air pollution from the use of fossil fuels, but it is expected that the rate of energy consumption in some developing nations will be twice that of industrialized nations from now to the year 2000.

Every country consumes energy at a faster rate at the beginning of its industrial growth than it does in later stages. Peoples in developing countries seek to raise their standard of living and own the same appliances and automobiles enjoyed by peoples in the North. Unless they are technically and financially assisted to use fuels more efficiently and to make a transition to alternative, "environmentally cleaner" technologies, they will not be able to avoid creating the same pollution—on a far more massive scale—that has been produced by countries in the industrialized world.

The effects of forest burning also are directly linked to global warming. The Earth's forests store 450 billion metric tons of carbon, much of it gathered from carbon dioxide found in air pollution. When burned, forests release carbon dioxide. Forest burning is the second largest source of greenhouse gases, after the use of fossil fuels.

Sustainable Forest Development

To sustain the forests while maintaining economic development, people will have to change the way they view forests. Experts point to three phases: in the first, the forest is viewed as an unlimited

resource. Its destruction may be promoted by encouraging agricultural expansion. In the second phase, destruction of the forest may cause concern that leads to the institution of controls. In the third phase, attempts are made to re-create the forest.

Reforestation (replanting areas that once were forests) and afforestation (planting new forests) have been under way in some parts of the world for centuries. Between the 17th and 19th centuries, practices in Japan shifted from unregulated deforestation, which produced landslides and a wood supply shortage, to afforestation.

The United States began deforestation in the 1600s to provide timber, firewood and new lands for grazing and farming. In the 1930s, for the first time, forest land began to re-expand. Deforestation began in Europe in the 6th century; a wood shortage developed and, beginning in the 19th century, the process was reversed.

Now, although deforestation rates are soaring, satellites and other technology make it possible to inventory and plan for reforestation projects on a regional and global scale. Regional and international organizations and businesses are playing an expanded role in forest issues.

Many nations are now taking steps to change destructive practices. Parts of Scandinavia, Canada and the former USSR are carrying out sustainable management practices. More than 60 countries have agreed to prepare national forestry programmes under the Tropical Forestry Action Plan, launched in 1985 by FAO. Logging in the tropics has not traditionally had sustainability as a goal. Typically, only 10 to 20 per cent of the trees are harvested, but up to half are destroyed in the logging process. The soil is so disturbed that the forest does not regenerate and becomes degraded. Simply changing logging techniques would be a significant step.

Although plantation forests can play an important role, many species will need protected native habitats if they are to survive. The setting aside of selected forests is already under way. Recently, Bolivia has launched a five-year ecological moratorium, temporarily suspending logging concessions. Guyana has set aside 360,000 hectares of tropical forest for conservation and research. India and Viet Nam have launched conservation efforts.

Public policy and trade are also being used as tools to encourage sustainable forestry practices. Brazil has modified its incentives for cattle ranching, which encouraged clearing the Amazon. Germany, the United Kingdom and the Netherlands have placed special restrictions and controls on the use and imports of tropical timber, although such regulations have been sharply criticized by some developing countries as unfair trade practices.

Work is also beginning at the grass-roots level. In many cultures women have the responsibility for food- and fuel-gathering and have a keen insight into the importance of forests. The Greenbelt Movement in Kenya, a women's organization, has planted millions of trees for food and fodder and raised awareness of the forest issue. Projects like this can help prevent degraded forests from becoming deserts.

Governments and a variety of local and international organizations have identified sustainable forestry practices as a priority. The process of understanding the problem, establishing plans to fix it and finding the resources to apply to the task has at least begun. The debate and negotiations taking place as part of the Earth Summit preparations, and the set of forestry principles that are expected to be adopted in Rio, will undoubtedly make a major contribution to that process.

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